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ABSTRACT

A 3-day working conference on adult mathematical literacy took a first step toward ensuring that all adults acquire the mathematical skills they need to function on the job and in society, to achieve personal goals, and to support their children's education. Participants were adult educators involved in numeracy-related instruction, teacher training, and curriculum development and representatives of the mathematics education and adult education communities nationwide. Conference participants identified the "next steps" that should be considered by individual adult educators as well as by literacy programs and the larger adult education and mathematics education communities when discussing and implementing math education reforms. A major outcome was the establishment of the Adult Numeracy Practitioner Network. Key findings were as follows: the identification of critical content areas; little evidence that math education is fully integrated with adult literacy instruction or that assessment methods adequately test for numerical skills important in daily life; and most adult educators' lack of solid training in instructional techniques in this area. Several key recommendations were made: instructional practices should focus less on the traditional lecture format and more on hands-on activities and real-world tasks; assessment tools should be developed that offer diagnostic information; and support for teachers' professional development must be provided. (YLB)

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BRIEF

Proceedings. Conference on Adult Mathematical Literacy

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KEY FINDINGS:

- Critical content areas that should be taught in adult numeracy education include number operations and number sense, understanding data, measurement and spatial sense, and informal algebra.
- Despite growing recognition of the importance of numeracy, there is little evidence that math education is fully integrated with adult literacy instruction, or that assessment methods adequately test for the numerical skills that are important in daily life.
- Most adult educators involved in math instruction lack solid training in instructional techniques in this area.

KEY RECOMMENDATIONS:

- Instructional practices should focus less on the traditional lecture format and more on hands-on activities and real-world tasks involving mathematics. Classroom math experiences should offer opportunities for collaborative learning and problem solving, and they should enable students to develop their math communication and reasoning skills.
- Assessment tools need to be developed that can offer diagnostic information (for teachers and student use) as well as provide useful information for reporting to funders and for evaluating programs.
- Support for teachers' professional development must be provided in order to improve instruction and thereby improve student achievement of critical skills.

INTRODUCTION

A three-day Working Conference on Adult Mathematical Literacy was co-organized in March 1994 in Arlington, VA, by the National Center on Adult Literacy, the National Council of Teachers of Mathematics, and the Office of Vocational and Adult Education of the U.S. Department of Education. This invitational conference took a first step towards ensuring that all adults in the United States acquire the mathematical skills that they need to function on the job and in society, to achieve their personal goals, and to support their children's education.

METHODOLOGY

About half of the 110 participants were adult educators from over 30 states who were involved in numeracy-related instruction, teacher training, and curriculum development. The other participants were representatives of the mathematics education and adult education communities nationwide—federal agencies, nongovernmental organizations, business, educational media, and academia as well as numerous other endorsing organizations. Conference participants identified the "next steps" that should be considered by individual adult educators as well as by literacy programs and the larger adult education and mathematics education communities when discussing and implementing math education reforms. This report also includes 11 chapters (grouped into three clusters: Needed Skills and Skill Gaps, Current Delivery Systems, and Reform Initiatives in Mathematics Education), whose draft versions were read by conference participants in order to establish a common framework for discussions.

IMPLICATIONS

One of the major outcomes of the conference was the establishment of an Adult Numeracy Practitioner Network, whose key goals include (a) raising awareness and increasing support for activities that promote mathematical literacy; (b) increasing opportunities for staff development, including making linkages with K–12 training programs; (c) identifying funding sources for supporting adult

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numeracy education and teacher training, including sources that traditionally have invested only in K–12 or college-level mathematics education; and (d) including teachers as active participants in research projects that can inform effective programming, teaching, and assessment. A regular newsletter is published by the network.

FURTHER READING

Gal, I., & Schuh, A. (1994). *Who counts in adult literacy programs? A national survey of numeracy education* (Technical Report TR94-09). Philadelphia: University of Pennsylvania, National Center on Adult Literacy.

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Tibbetts, J., Kutner, M., Hemphill, D., & Jones, E. (1991). *Study of ABE/ESL instructors' training approaches: The delivery and content of training for adult education teachers and volunteer instructors*. Washington, DC: U.S. Department of Education.

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